Headquarters U.S. Air Force

Integrity - Service - Excellence

Using Diagnoses Data

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Jul 03

Regional Coding VTCs

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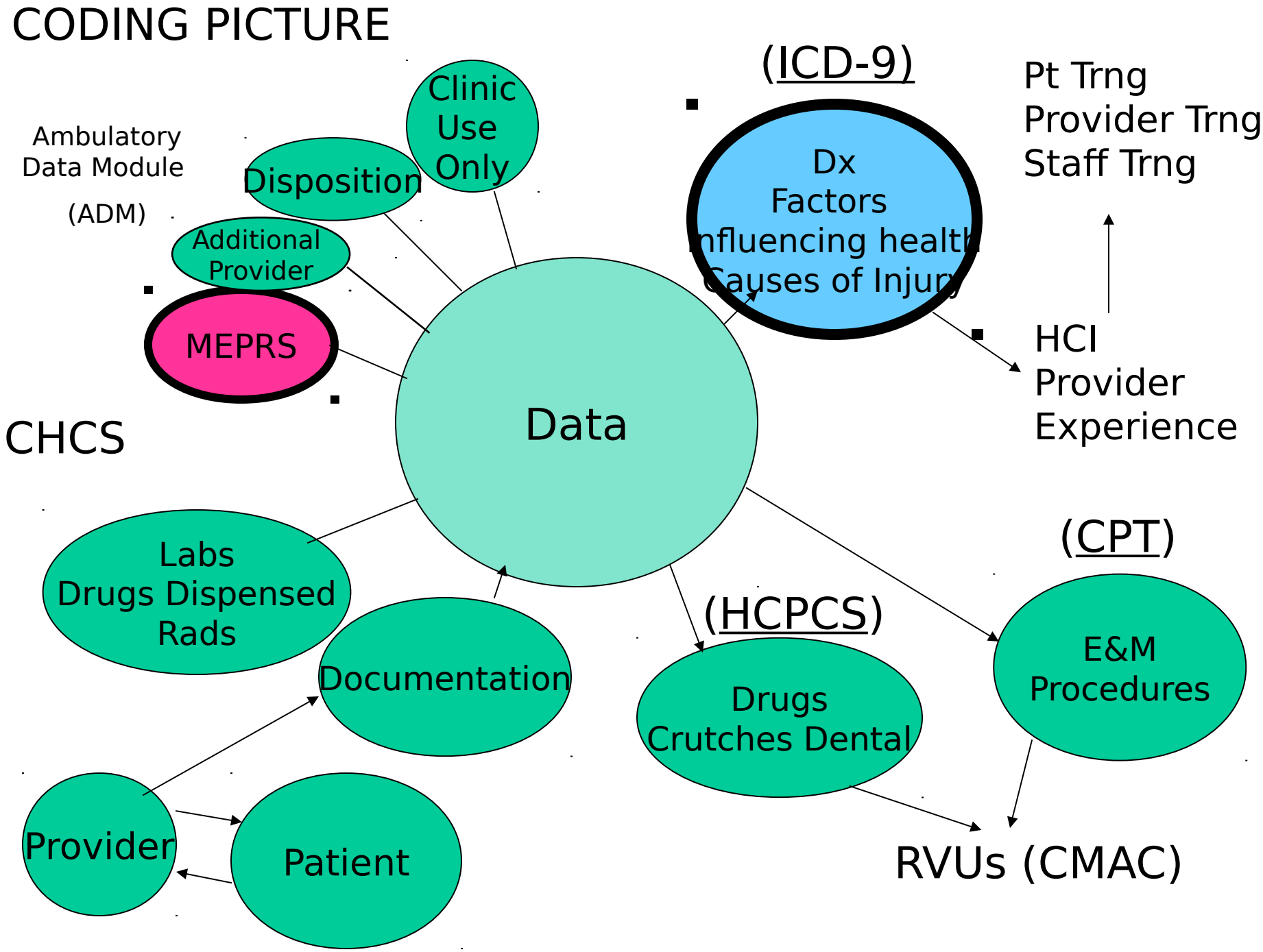
Objective

- Outline what data you NEED to collect to make strategic population health decisions
- Identify the level of data you NEED to collect
- Summarize how to use diagnosis data for population health


CODING PICTURE
(ICD-9)
Pt Trng
Provider Trng
Staff Trng
Clinic Use Only
Ambulatory Data Module (ADM)
Disposition
Additional Provider
MEPRS
Dx
Factors
Causes of Injury
HCI
Provider
Experience
CHCS
Data
Labs
Drugs Dispensed
Rads
(CPT)
(HCPCS)
Documentation
Drugs
Crutches Dental
E&M
Procedures
Provider
Patient
RVUs (CMAC)

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What do you NEED?

- Why are you collecting the data?
  - Population Health
  - Legal Requirements
  - Compare your practice to others within your clinic/specialty (both DoD and Civ)
  - Because HQ asks for it to be collected
  - Justify resources

Data Quality – Population Health

- What do you need to know for population health
  - HEDIS/identify for screenings
    - 796.2 elevated BP w/o dx of HTN
  - Target patient education/prevention, self-care
  - Target provider and staff training/education

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Data Quality - Legal

- Documentation
- Communicable diseases and contacts
  - Note: STD f/u identified as problem by AF IG
- Correct billing (medical necessity)
- Age of consent (OB related care can be provided at a younger age w/o parental consent than some other care)

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Data Quality - Compare

- Compare –
  - Disease incidence
  - Outcomes within disease groups
    - e.g., injuries of runners that attended running clinic vs those that did not; smoking cessation program results; weight control program results; VD incidence at base with intervention and base without
  - Cost effectiveness – 8 hr initial DM class vs 2 hr initial and 1 hr class each month
  - Why do some programs work with some individuals

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Data Quality - Resources

- What is the most effective use of resources
  - Balance panels – spread the DMs around or DM to one internist, dementia to another
  - Identify medicine specialties needed – do you have a need for a pediatric endocrinologist once a month
  - Buy equipment – does having a Nordic Track in your living room cause you to exercise more

Data Quality - Access

- Figure out appointment types (can use in conjunction with E&M and CPTs)

ICD 9	Description	BBA #	BBA %	Appt Ty
V58.3	ATTENTION TO SURGICAL DRESSING	23	8.8	est
V67.00	FOLLOW-UP SURGERY NOS	19	7.3	est
550.9	UNILAT INGUINAL HERNIA	16	6.1	spec
V67.09	FOLLOW-UP SURGERY NEC	16	6.1	est
685	PILONIDAL CYST W ABSCESS	14	5.4	acute
611.72	LUMP OR MASS IN BREAST	13	5	spec
V58.41	ENCNTR PLANNED POSTOP WND	12	4.6	procedu
V72.83	OTH SPEC PRE-OP EXAM	10	3.8	est
706.2	SEBACEOUS CYST	9	3.4	spec
214.1	LIPOMA SKIN NEC	8	3	spec
553.1	UMBILICAL HERNIA	8	3	spec
574.2	CHOLELITHIASIS NOS	7	2.7	acute
575.11	CHRONIC CHOLECYSTITIS	6	2.3	spec
789	ABDOMINAL PAIN, UNSPECIFIED SITE	5	1.9	acute
879.8	OPEN WOUND SITE NOS	5	1.9	acute
V76.10	SCR MALIG NEOPL,BREAST SCR,UNS	4	1.5	spec

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What YOU need to collect

- Data Granularity
  - Meaningful to YOU
  - Attributes and values collected at level of detail YOU need
  - Easily obtainable
  - Legally obtainable

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Common Data Collection Problems

- Documentation
- Incorrect coding
  - Wrong code
  - Entered incorrectly (sequencing)
- System limitations
- Resource limitations
- Standardization – lack of understanding policies

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Common Problem - Documentation

- Problem –
  - Illegible
  - Not enough/incomplete
  - Abbreviations
- How to overcome –
  - Overprints
  - Dictation (in-house, contract, voice activated)
  - Go to Section Chief to read illegible charts

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How to pull data

- How many dx fields?
- What is in “1” dx field?
- What is in other dx fields?

- If you want to know why people present – which field(s) do you want?
- If you want to know what care is being provided – which field(s)
- If you want all post deployment problems – which field(s)

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Know your denominator

- How many empanelled?
- How many seen?
- What age groups?
- Total visits/enrolled does not equal Total dx/enrolled

A few common errors – How to code Physical Therapy

ICD9	Description	BLA#	BLA%	AFMS #	AFMS %	Delta
V57.1	Physical Therapy	913	99	10272	22.7	76.3
V65.43	Counseling Injury Prevention	8	0.8	226	0.4	0.4
739.2	SOMAT DYSFUNC THORAC REG	1	0.1	279	0.6	-0.4

- First dx in PT should usually be V57.1, to see underlying cause, must look at secondary code
- Also remember to annotate time involved

A few other common errors – How NOT to code PT

- **Do not code resolved conditions**
- **Most of the codes below should be secondary codes**

ICD9	Description	BLA#	BLA%	#AFMS	%AFMS	Delta
724.2	LUMBAGO	81	9	2852	6.2	2.8
724.5	BACKACHE NOS	68	7.5	526	1.1	6.4
844.9	SPRAIN OF KNEE LEG NOS	56	6.2	310	0.6	5.6
739.3	SOMAT DYSFUNC LUMBAR REG	55	6.1	948	2	4.1
728.9	Muscle,ligament,and fascia d/o,NOS	38	4.2	102	0.2	4
717.9	Knee,internal derangement,NOS	31	3.4	256	0.5	2.9
844.2	SPRAIN CRUCIATE LIG KNEE	29	3.2	568	1.2	2
V58.49	OTHER SPEC FOLLOWING SURG	22	2.4	926	2	0.4
847	SPRAIN OF NECK	22	2.4	346	0.7	1.7
724.3	SCIATICA	21	2.3	332	0.7	1.6
844.1	SPRAIN MEDIAL COLLAT LIG	21	2.3	225	0.4	1.9
717.7	CHONDROMALACIA PATELLAE	20	2.2	966	2.1	0.1
724.1	PAIN IN THORACIC SPINE	19	2.1	516	1.1	1
824.8	FX ANKLE NOS-CLOSED	19	2.1	111	0.2	1.9

A few common errors – How to code Nutritional Medicine

- 1st diagnosis is why they came, usually for diet counseling
- Need to look at secondary diagnosis for underlying cause
- Overweight BMI 25; Obese BMI 30; Morbid Obesity BMI 40
- Even if counseling pregnant ladies, reason, counseling, underlying would be V22.2 Pregnant state NOS/Incidental
- Be sure to annotate time involved to get appropriate CPT

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A few common errors – How to code Nutritional Medicine

ICD9	Description	BAL #	BAL %	# AF	% AF	Delta
V65.3	DIETARY SURVEILLANCE	58	48.7	5741	80.5	-31.7
783.1	ABNORMAL WEIGHT GAIN	23	19.3	101	1.4	17.9
V22.2	Pregnant,NOS/INCIDENTAL	8	6.7	145	2	4.7
278	MORBID OBESITY	7	5.8	21	0.2	5.6
272.4	HYPERLIPIDEMIA NEC/NOS	6	5	81	1.1	3.9
250.02	DM ADULT/NIDDM NOS	6	5	40	0.5	4.5
250.00	DM WO COMPLIC	3	2.5	187	2.6	0
278	OBESITY, UNSPECIFIED	2	1.6	311	4.3	-2.6
272.2	MIXED HYPERLIPIDEMIA	2	1.6	137	1.9	-0.2
271.3	Lactose Intolerance	2	1.6	5	0	1.6
787	NAUSEA WITH VOMITING	1	0.8	1	0	0.8
250.01	DM WO COMPLIC	1	0.8	6	0	0.8

A few common errors – How to code Optometry

- **CC: Problem seeing far… OR CC: Annual Exam… OR CC: My arms are getting shorter**

ICD9	Description	BHC#	BHC%	#AFMS	%AFMS	Delta
367.21	REGULAR ASTIGMATISM	279	69.9	919	3.8	66.1
367.1	MYOPIA	42	10.5	8895	37.5	-26.9
367.4	PRESBYOPIA	17	4.2	924	3.9	0.3
367	HYPERMETROPIA	7	1.7	2177	9.1	-7.3
V67.9	F/U Exam, NOS	7	1.7	227	0.9	0.8
V72.0	EXAM OF EYES & VISION	5	1.2	2872	12.1	-10.8
365	PREGLAUCOMA NOS	5	1.2	219	0.9	0.3
373.02	SQUAMOUS BLEPHARITIS	5	1.2	11	0	1.2
372.05	AC ATOPIC CONJUNCTIVITIS	4	1	42	0.1	0.9

Overview – How to use data for population health

- Know how to ask for the data
  - Which fields
  - Sorted how
- How to look at your top 30
- Targeting one-on-one
- Targeting groups
- Shotgun targeting
- Getting the word out
- Getting people to help

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How to look at your top 30

- Look at top 30 by clinic - each clinic has own population
- Notice common dx across clinics
  - Cold; pharyngitis; bronchitis; conjunctivitis; lumbago; OM, UTI; asthma; rhinitis-pollen; sinusitis, viral warts
- Notice “split” diagnoses and add them together
  - OM (381/2), Cold/URI/Viral Infection, lumbago/back pain
- Remember - incorrect coding can skew data
  - For F/U, code F/U, not initial dx if dx resolved
- Multiple visits for same dx, but only 1 patient

ICD9	Description	# BGA	% BGA	# AF	%AF	Delt
V68.9	Unspecified admin -WHAT?	515	15.7	1486	1	14.7
V70.5 6	POST-DEPLOYMENT EXAMINATION	237	7.2	1303	0.9	6.3
V70.0	ROUTINE GENERAL MEDICAL EXAMIN	157	4.8	345	62.4	2.4
V72.3	GYNECOLOGICAL EXAMINATION	134	4.1	426	83	1.1
V70.3	OTHER GENERAL MEDICAL EXAMINAT	122	3.7	128	0.9	2.8
V70.5	Health Exam defined subpop - NO EXTENDER	113	3.4	2915	2	1.4
V68.89	Admin Encounter - WHAT IS THIS!!!!	69	2.1	101	80.7	1.4
724.2	LUMBAGO, see also 5 further down	43	1.3	277	31.9	-0.5
782.1	NONSPECIF SKIN ERUPT NEC	43	1.3	638	0.4	0.9
465.9	Acute URI, see also 5 further down	42	1.2	446	33.1	-1.8
462	ACUTE PHARYNGITIS	40	1.2	243	51.7	-0.4
401.1	Benign HTN, 16 more under 401.9 HTN NOS	36	1.1	171	51.2	0
477.8	ALLERGIC RHINITIS NEC	35	1	100	20.7	0.3
724.5	BACKACHE NOS	34	1	607	0.4	0.6
460	ACUTE NASOPHARYNGITIS	32	0.9	782	0.5	0.4
V01.1	CONTACT WITH OR EXPOSURE TO TU	31	0.9	52	0	0.9

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Another FPC

ICD9	Description	#BGA	%BGA	#AF	%AF	Delta
V65.3	Dietary Surveillance ? #1?	77	4.7	434	0.3	4.4
465.8	Acute URI multiple sites?	64	3.9	146	0.1	3.8
V70.5 7	Fitness for Duty exam?	64	3.9	445	0.3	3.6
462	ACUTE PHARYNGITIS	45	2.7	2432	1.7	1
401.1	BENIGN HYPERTENSION	40	2.4	1714	1.2	1.2
461	AC MAXILLARY SINUSITIS	33	2	516	0.3	1.7
V65.41	EXERCISE COUNSELING	32	1.9	74	0	1.9
V68.89	Other Admin Encounters?	27	1.6	1016	0.7	0.9
724.2	LUMBAGO	27	1.6	2770	1.9	-0.2
477.9	Allergic Rhinitis NOS	25	1.5	3664	2.5	-0.9
V70.5 3	Occupational Exam?	24	1.4	344	0.2	1.2
719.46	JOINT PAIN-L/LEG	19	1.1	1684	1.1	0
8.8	VIRAL ENTERITIS NOS	19	1.1	133	0	1.1
250	DM WO COMPLIC	18	1.1	1380	0.9	0.2

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Peds

- Look at peds dx in other clinics to see if there is an access problem, for example
  - OM in the ER, FPC and Optometry
- At this base, Peds looks pretty good
- Could target allergies
- More conjunctivitis than usually coded in Peds, could be that this clinic has enough acute appointments so all the conjunctivitis can get in
- Numbers for OM and f/u do not track
- OM not collected consistently – see in two slides

Peds

ICD9	Description	#BDA	%BDA	#AF	%AF	Delta
V20.2	Well Baby	250	26.7	12519	22.7	4
V70.3	OTHER GENERAL MEDICAL EXAM	72	7.7	1735	3.1	4.6
477.9	ALLERGIC RHINITIS, NOS	50	5.3	1264	2.2	3.1
382	AC SUPP OTITIS MEDIA NOS	45	4.8	992	1.8	3
465.9	ACUTE URI NOS	38	4	3278	5.9	-1.8
372.3	CONJUNCTIVITIS NOS	30	3.2	536	0.9	2.3
493.00	Extrins Asthma wo ment asthmat	23	2.4	384	0.6	1.8
V67.59	OTHER FOLLOW-UP EXAMINATION	19	2	1206	2.1	0
692.9	DERMATITIS NOS	15	1.6	723	1.3	0.3
493.02	EXT ASTHMA W ACUTE EXAC	14	1.4	161	0.2	1.2
564	UNSPECIFIED CONSTIPATION	14	1.4	371	0.6	0.8
314.01	ATTN DEFICIT W HYPERACT	13	1.3	985	1.7	-0.3
382.9	UNSPECIFIED OTITIS MEDIA	12	1.2	2408	4.3	-3
462	ACUTE PHARYNGITIS	12	1.2	1983	3.6	-2.3
V67.9	FOLLOW-UP EXAM NOS	11	1.1	667	1.2	0
691	DIAPER OR NAPKIN RASH	9	0.9	210	0.3	0.6

Peds – OM collection

- OM not collected consistently, f/u numbers do not match
  - NOS and specific – looks like both coders and super bills
  - F/U should approximately match OM & Strep
    - Was there only one strep (out of 935 visits) or did they not go back and update ADM?

ICD9	Description	#BDA	%BDA	#AF	%AF	Delta
382	AC SUPP OTITIS MEDIA NOS	45	4.8	992	1.8	3
V67.59	OTHER FOLLOW-UP EXAMINATION	19	2	1206	2.1	0
382.9	UNSPECIFIED OTITIS MEDIA	12	1.2	2408	4.3	-3
V67.9	FOLLOW-UP EXAM NOS	11	1.1	667	1.2	0
382.01	AC SUPP OM W DRUM RUPT	3	0.3	84	0.1	0.2
381.4	NONSUPP OTITIS MEDIA NOS	3	0.3	140	0.2	0.1
381	AC NONSUP OTITIS MED NOS	2	0.2	215	0.3	0
381.01	AC SEROUS OTITIS MEDIA	2	0.2	268	0.4	-0.1
34	STREP SORE THROAT	1	0.1	458	0.8	-0.6

- Looks good, small population so difficult to identify targeting opportunities – colds are viral

ICD9	Description	#BJA	%BJA	#AF	%AF	Delta
V68.0	Issue Med Cert? Up Chit? Not DNIF?	42	14.8	1365	3.6	11.2
V70.5 2	PERIODIC PREVENT EXAM	40	14.1	2229	5.8	8.3
465.9	ACUTE URI NOS	14	4.9	1760	4.6	0.3
724.2	LUMBAGO	10	3.5	530	1.3	2.2
477.9	ALLERGIC RHINITIS, NOS	9	3.1	747	1.9	1.2
994.6	MOTION SICKNESS	7	2.4	214	0.5	1.9
558.9	NONINF GASTROENTERIT NEC	7	2.4	344	0.9	1.5
V70.5 1	AVIATION EXAMINATION	6	2.1	1730	4.5	-2.3
462	ACUTE PHARYNGITIS	5	1.7	565	1.4	0.3
V70.5 6	POST-DEPLOYMENT EXAM	4	1.4	1404	3.7	-2.2
724.5	BACKACHE NOS	4	1.4	139	0.3	1.1
719.41	JOINT PAIN-SHLDER	4	1.4	161	0.4	1
110.1	DERMATOPHYTOSIS OF NAIL	3	1	64	0.1	0.9

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Look at ratios

- low ratio of obesity, HTN, hypercholesterolemia, GERD in Student Health and Flight Medicine
- don’t always trust - also low ratio of Tobacco Use Disorder – but would not expect to see as primary
- higher ratio of sinusitis in Flight Medicine and Internal Medicine than in FPC (due to HTN and limited self-medication for flyers)

Targeting one-on-one

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- Hemoglobin A1C - databases by provider, patient, date, lab result
- Positive pregnancy tests
- High lipids/triglycerides
- New diabetics
- New parents matched with experienced parents
- Send “letters” to people who reach screening thresholds and need screening (e.g., 50 yo flex sig, no pap in 3 years), explain why, how to get appointment. Be sure to check the patient did not already have the screening (V-codes and some procedure codes)

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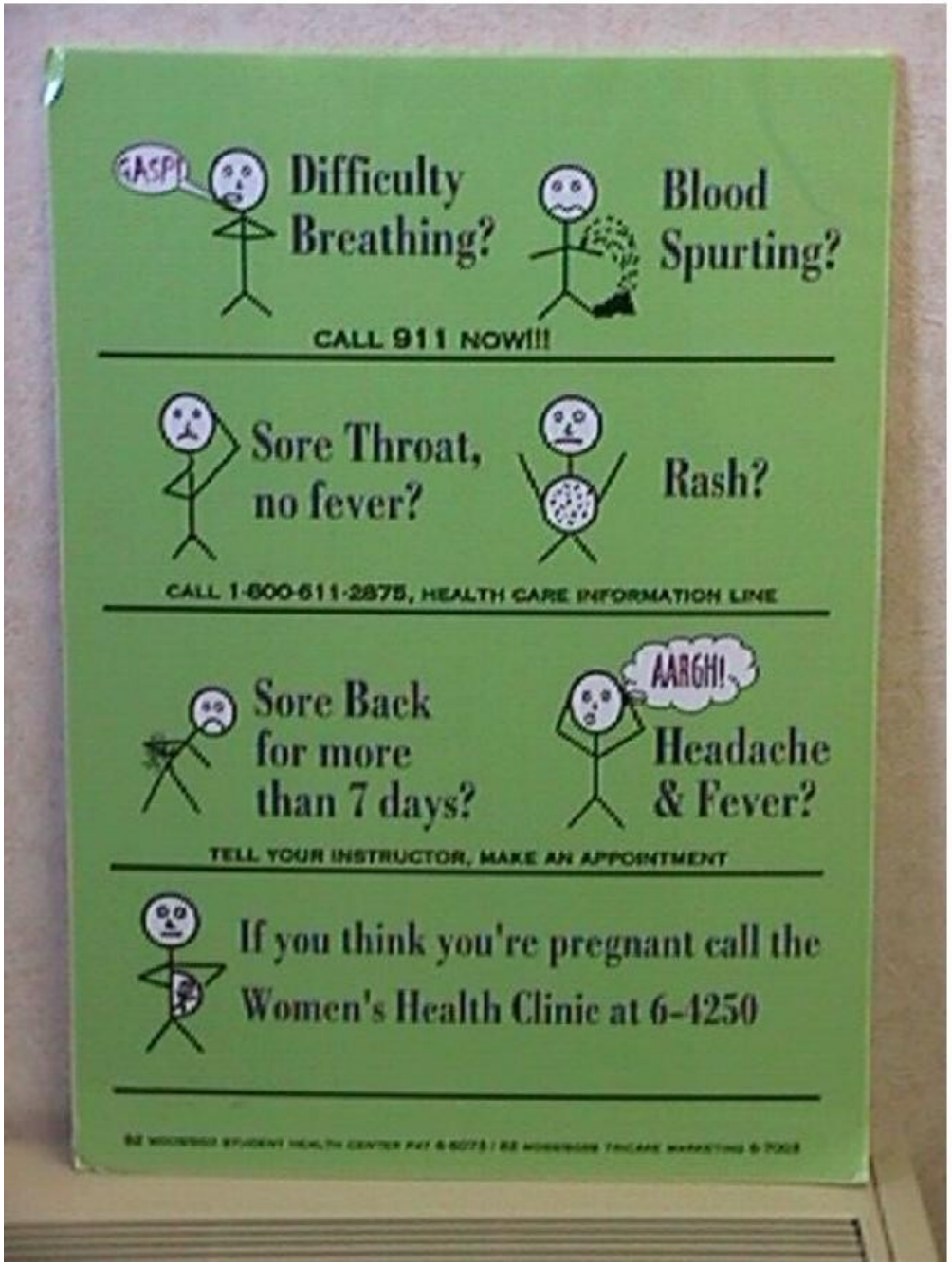
Targeting groups

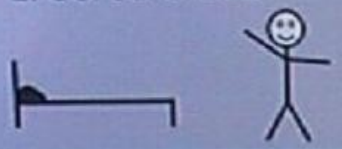
- Parents with children with BMI over 27
- Parents who smoke
- **Posters**
  - dorms (sleep, STDs, access care)
  - work areas (using PPE, repetitive stress)
  - commissary (healthy heart)
  - child care center (conjunctivitis, lice)
  - fitness centers (selecting proper equipment/ shoes)
  - pools (skin cancer)


GASP!
Difficulty Breathing?
Blood Spurting?
CALL 911 NOW!!!
Sore Throat, no fever?
Rash?
CALL 1-800-611-2875, HEALTH CARE INFORMATION LINE
Sore Back for more than 7 days?
AARGH!
Headache & Fever?
TELL YOUR INSTRUCTOR, MAKE AN APPOINTMENT
If you think you're pregnant call the Women's Health Clinic at 6-4250

8 Ways to Avoid Depression

1. Take time each day to reflect on positive things about yourself and your life...

2. Get out of bed

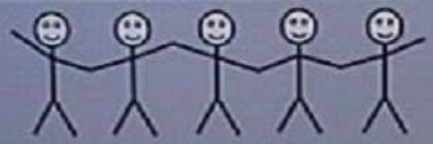


3. Do fun things

4. Exercise

5. Eat healthy

6. Socialize



7. Set goals;

TO DO:
1. Pet dog ✓
2. Chase cat ✓
3. Do homework ✓
4. Eat veggies
5. Be with friends

Work toward them;

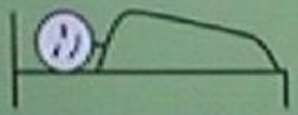
Recognize your accomplishments

8. Keep perspective

- Don't let little things get you down
- Don't take what others do or say too personally

for additional help call the Mental Health Clinic at 6-6075, or a chaplain at 6-4370/2111, or the Emergency Services Department at 6-2333

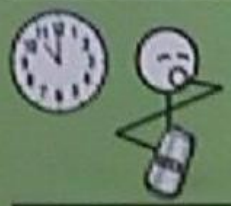
Sleep is Important



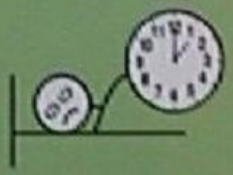
Most people need at least
8.5 hours of sleep every night

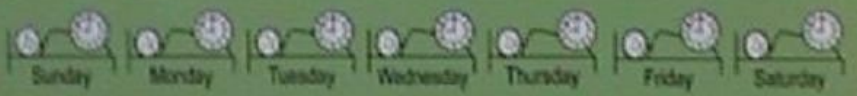
Dark, quiet, head cooler than body

No caffeine past 12 noon-
you will not be able to fall asleep



Drink alcohol at bedtime...
wake up 2 hours later





Go to sleep and wake up at the same time (including
weekends and holidays)- it will be easier to fall asleep

Sleep deprivation of more than 1 hour per night for 2-3 days
has the same effects as .10 blood alcohol level

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Shotgun targeting

- Articles - difference between flu and cold; difference between cold and allergic rhinitis; selecting running shoes; how antibiotics work/OM; acne

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Get the Word Out

- Determine where to spend resources
  - Health and Wellness Center
    - Running Clinics
    - Exercise classes for obese
    - Back Clinics
    - Stress/Time management/Study Skills
    - Nutrition
  - Handouts

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Getting People to Help

- HAWC - work hand-in-hand, target populations together. HAWC has experience in publicity, has space for classes, has connections to get class outlines, already has time slots at base newcomers, first term airmen…
- Retirees - to help with screenings, with new mothers, keep brochures filled
- PAs and NPs - to write articles (offer to write them good bullets)
- Art work - ask around, usually a good artist around (or there are always stick figures)

Objective

- Outline what data you NEED to collect to make strategic population health decisions
- Identify the level of data you NEED to collect
- Summarize how to use diagnosis data for population health

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Review

- How to look at your top 30
- Targeting one-on-one
- Targeting groups
- Shotgun targeting
- Getting the word out
- Getting people to help

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Your Data

- What are the top 15 dx in each of your clinics?
- Do you need more information (NEC, NOS)?
- What could be targeted?
- Possible prevention: classes, articles, training military training leaders, briefing commander's call, posters

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Questions

- How do I get people to eat right, exercise, get sleep, limit sun exposure, laugh
  - train them while they are young, establish habits
- How do I get others to submit articles
- How do I learn to write informative articles
  - keep them short - like factoids
  - keep sentences simple (10 words or fewer)
  - keep “medicaleze” to a minimum
  - keep working on them

Future Talks

August – Aggregate Audits

- September – Super Bills
- October – Inpatient Professional Services

- Talks subject to change

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Questions?

- E-mail your service POC:
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